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New Farm and Forest Products

Responses to the Challenges
And Opportunities Facing
American Agriculture

Executive Summary



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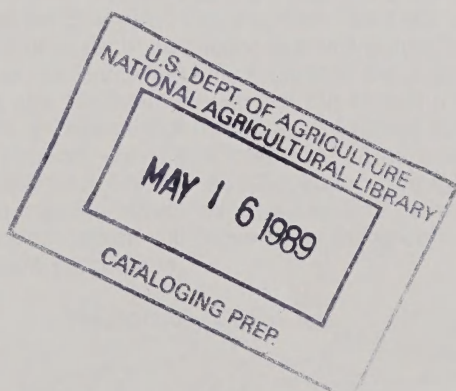
Responses to the Challenges
And Opportunities Facing
American Agriculture

Executive Summary



*A Report from The New Farm and
Forest Products Task Force to
The Secretary, U.S. Department of
Agriculture, Washington, D.C.*

June 25, 1987





United States
Department of
Agriculture

416420
New Farm and
Forest Products
Task Force

Hamilton Building
Room 635
Washington, D.C.
20250-2200
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June 1987

Honorable Richard E. Lyng
Secretary of Agriculture
Washington, D. C. 20250

Dear Mr. Secretary:

When the Secretary's Challenge Forum on New Uses for Farm Products was convened in October 1984, it began a dialogue which subsequently led to the formation of the New Farm and Forest Products Task Force. A collaborative effort between industry, academia and government, our Task Force evolved to address the issues raised at that Forum - issues which we believe are vitally important to the interests of the entire Nation.

Our work over the last two years has convinced us that diversification of agriculture and forestry must become a national priority. Diversification is not only needed to respond to the challenges facing American agriculture, but as a key part of any response to the competitive challenges confronting our entire Nation. As documented in our report, we have found evidence of opportunities for new crops, and other new farm and forest products, to meet real market needs, particularly for industrial uses. Our report therefore proposes specific initiatives to turn such opportunities into realities.

Mr. Secretary, we have recently found our independent results to be remarkably consistent with elements of the President's Competitiveness Initiative launched earlier this year. We also find that 1987 marks notable anniversaries of several significant legislative actions including: the centennial year of the Hatch Act which created the Agricultural Experiment Stations; the 125th anniversary of the founding of your Department; the 25th anniversary of the McIntire-Stennis Act on cooperative forestry research; and, the 10th anniversary of the establishment of an Assistant Secretary for Science and Education. We members of the Task Force hope that our efforts will now serve to catalyze other meaningful actions - ones which will prove to be fitting commemorations to these important precedents.

Respectfully Submitted,

Ronald L. Sampson



New Farm and Forest Products
Task Force

Dr. Ronald L. Sampson, Chairman

Executive Summary

Agriculture, including forestry, is a strategically vital industry for the United States. Not only is food security critical to national security, but the Nation's domestic economy and balance of trade are both highly dependent upon agriculture. As America's largest industry, agriculture must necessarily be a cornerstone for prosperity and international competitiveness.

With its production capacities already underutilized, U.S. agriculture is facing major challenges which portend a chronic crisis state. The causes of this crisis are complex and related to global developments, in addition to long-term domestic policies. However, regardless of cause, **America now has an overconcentration of agricultural production in a relatively few major food and feed crops, - crops for which worldwide production is increasing, and global import markets are shrinking.**

Although the possibility of a regional calamity causing a temporary shortfall in supply always exists, current trends offer little hope for long-term relief. Indeed, deepening problems can be expected in the future, as an increasing number of exporting countries will be competing for shrinking export markets. **These realities pose sobering challenges to U.S. policymakers,** as well as the agricultural industry itself.

The New Farm and Forest Products Task Force was formed to respond to these challenges. A collaborative effort between industry, academia and government, the Task Force evolved in mid-1985 from a previous USDA Challenge Forum to address related issues. Upon formation, the Task Force adopted a mission to define and propose meaningful, actionable initiatives based upon a comprehensive analysis of the situation.

Based on its findings, **the Task Force concluded that diversification of agriculture and forestry must become a national priority.** Indeed, the group concluded that diversification, via both new crops and new uses for existing ones, appears to offer the only alternative which promises to enable both: (1) revitalization of ailing segments of the industries; and (2) realization of the full economic potential which agriculture and forestry hold for the Nation.

Continued efforts to increase efficiency and reduce production costs for current commodities continue to be important; however, in the opinion of the Task Force, at least equal emphasis should be placed on diversification into new crops and other new products. Importantly, the group did find evidence that **significant opportunities exist for new farm and forest products to meet real market needs - particularly in industrial, non-food application areas.**

Based on its findings and conclusions, the New Farm and Forest Products Task Force proposes adoption of the following **national goal**:

To develop and commercialize within 25 years, an array of new farm and forest products, utilizing at least 150 million acres of productive capacity, to meet market needs representing net new demand for agricultural and forestry production.

Such a goal represents the equivalent development of two to three new soybean crops - in about one-half the time the soybean required to rise to its current level of significance. The Task Force estimates that attainment of such a goal today would: generate about 750,000 new jobs; increase farm income by about \$30 billion per year; and annually contribute about \$100 billion in activity to the Nation's economy.

The Task Force believes the proposed goal is appropriate and attainable. However, success in achieving it will require both technological and institutional innovation. Specifically, **success in large scale diversification of American agriculture will depend upon: (1) adoption of appropriate strategies; and (2) implementation of those strategies through initiatives which provide innovative organizational approaches to overcome past limitations and barriers to success.** Although the quality of public agricultural research has always been quite high, concentration upon production of current commodities, and the lack of mechanisms to ensure commercial relevance and effective technology transfer to industry, have been limitations in the past.

The **diversification strategies** recommended by the Task Force are as follows:

1. Increase national emphasis on, and reallocate existing resources to the development of new farm and forest products;
2. Establish a consensus that diversification of agriculture and forestry should be a national priority, based upon an understanding, across a broad spectrum of society, of the vital contributions that agriculture and forestry make to the health and wealth of the Nation;
3. Establish mechanisms to increase private/public sector collaboration and cooperation in the development of new farm and forest products;
4. Establish mechanisms to facilitate agricultural technology transfer, particularly between the public research and private industrial sectors;
5. Ensure that responsible biotechnological developments can proceed at a rate which retains national leadership in agricultural applications; and

6. Establish an organized program to identify opportunities for encouraging, and reducing barriers to, the development of new farm and forest products.

To implement the strategies and thereby enable attainment of the diversification goal, the New Farm and Forest Products Task Force proposes several specific action steps and initiatives. Each proposal addresses a particular need, and is intended to build upon existing, relevant programs and organizations in both the private and public sectors. However, one of the proposals is considered to be of paramount importance. Specifically, the Task Force considers **the establishment of an independent organizational entity, dedicated to achievement of the diversification goal and provided with adequate resources to attain it, is essential for success.**

In its report, **the Task Force proposes the establishment of the Foundation for New Farm and Forest Products.** The proposed organization would be an autonomous, non-profit corporate entity with a mission to foster and facilitate the development and commercialization of new farm and forest products. As conceptualized, the Foundation would be specifically charged with the responsibility to achieve the diversification goal. Bridging both private and public sectors, **the Foundation would serve as an advocate, catalyst, coordinator, and cooperative funding source for the development of new farm and forest products.**

The Foundation proposal builds upon the results of prior studies and proven organizational models. **A key element of the proposal involves establishment of a trust fund to provide a stable, long term funding source for the needed cooperative private/public sector research programs.** Based on models in other areas of industry and technology, the minimum requirement for such a trust fund would involve a one-time allocation of \$100 million - perhaps generated by a single diversion from current commodity support programs. However, although such a minimal program would represent a step in the right direction, it would be inadequate to undertake the enormous and vitally important task of diversifying American agriculture.

To accomplish the diversification goal, **the Task Force recommends that the Foundation be initially funded by proceeds from a \$1 billion trust fund invested solely in U.S. Treasury securities.** It is proposed that the fund be established by the sale of \$200 million of various commodities held by the Commodity Credit Corporation each year for a five year period. When fully established, income from the trust would annually provide over \$75 million as a significant, sustained source of long term "seed and venture capital". Importantly, investments would be directed toward carefully selected, cooperative projects

in which private companies and other public organizations are also willing to invest. Such an approach would leverage funding, help ensure market focus, and also enhance cooperation and technology transfer between the public and private sectors. **Foundation investments would be made with provisions to secure royalty returns from successful projects, and the trust fund would ultimately revert back to the Federal Government.**

As detailed in its report, the Task Force proposes several other initiatives related to: (a) commercialization mechanisms for USDA research; (b) multi-disciplinary university research centers relevant to new farm and forest product technologies; (c) international cooperation to develop agricultural sources for industrial raw materials, on a selective basis as mandated by the Critical Agricultural Materials Act of 1984, PL 98284; and (d) task force efforts to address other specific needs.

The New Farm and Forest Products Task Force views its recommendations and proposals as merely starting points - actions to begin the concerted, long-term effort needed to revitalize U.S. agriculture and forestry, and ensure they remain as cornerstones of American competitiveness and prosperity.

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Acknowledgements from the Task Force

The work of the New Farm and Forest Products Task Force was made possible through the dedicated efforts and generous support of many individuals and organizations. The voluntary effort of each member, and the support of each member's sponsoring organization, enabled the work to progress without a budget or direct funding support. Because of the unusual circumstances involved, the Chairman particularly wishes to express his appreciation to the Procter & Gamble Company for their support of his efforts.

Although encouraged and supported by the U.S. Department of Agriculture, the Task Force was an independent body. Consequently, the group's conclusions and recommendations do not necessarily reflect the views of that Department. Nonetheless, the work of the Task Force could not have been accomplished without the coordination and support of the Department of Agriculture, especially the Office of the Secretary, the Office of the Assistant Secretary for Science and Education, and the Office of Critical Materials. In addition, the counsel and perspectives provided by Dr. Orville G. Bentley, Assistant Secretary for Science and Education, and the Department members of the Task Force Secretariat listed below, were constructive, helpful, and much appreciated.

Similarly, although the findings of the Task Force do not necessarily reflect the views of any particular outside contributor to its work, the individuals listed below as Task Force Associates must be acknowledged. Although not a member of the Task Force, each Associate made substantive contributions to their work. The perspectives the Associates shared, and the time and effort they contributed, were much valued and appreciated.

Task Force Secretariat

(Note: The Secretariat was formed to provide liaison between the Task Force and the Department of Agriculture. With the exception of the Task Force Chairman, each member of the Secretariat was affiliated with the Department.)

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